

Notice of Allowability

Application No.

10/777,947

Applicant(s)

FREIFELD ET AL.

Examiner

Irakli Kiknadze

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed 4/17/2006.
2. ☒ The allowed claim(s) is/are 1-33.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. In response to the Office action dated March 17, 2006 the Amendment has been received on April 17, 2006.

Claims 8 and 29 have been amended.

Claims 1-33 are currently pending in this application.

Allowable subject matter

2. Claims 1-33 are allowed.

3. The following is an examiner's statement of reasons for allowance:

With respect to claim 1, prior art fails to teach or make obvious an X-ray imaging device for imaging a sample, wherein the sample is within an X-ray shielded volume comprising: a first volume shield defining an elongated generally convex receptacle for receiving a first portion of the sample and having therein a transverse elongated shielding portion slidably coupled to a source beam shield; and a second volume shield defining an elongated generally convex receptacle for receiving a second portion of the sample, and having therein a transverse elongated shielding portion slidably coupled to an exit shield as claimed including all of the limitations of the claim 1. Claims 2-7 are allowable by virtue of their dependence.

With respect to claim 8, prior art fails to teach or make obvious an X-ray imaging device comprising: an attenuator that has calibration steps disposed between a source

and detector of ionizing radiation; a means for shielding an object that limits external exposure of ionizing radiation produced by the source of ionizing radiation to a level at or below 0.5 milliroentgen per hour at any point 5 centimeters outside an external surface of the imaging device; and wherein the means for shielding has a mass of less than 200 kg as claimed including all of the limitations of the claim 8. Claims 9-16 are allowable by virtue of their dependence.

With respect to claims 17 and 28, prior art fails to teach or make obvious an X-ray imaging device for imaging a sample contained within an X-ray shielded volume comprising: an X-ray shielded volume comprising: a core volume shielded by a left volume shield and a right volume shield separably connected so as to permit insertion and removal of a sample, the core volume having a top opening and a bottom opening, and a shielded telescoping sleeve permitting elongation of a beam path volume as claimed including all of the limitations of the claim 17. Claims 18-27 are allowable by virtue of their dependence.

With respect to claim 29, prior art fails to teach or make obvious a portable imaging device comprising: an attenuator that has calibration steps disposed between means for generating penetrative photons for imaging a sample and an X-ray image intensifier; and means for shielding the penetrative photons to a level below 0.5 milliroentgen per hour at any point 5 centimeters outside an external surface of the portable imaging device as claimed including all of the limitations of the claim 29. Claims 30-33 are allowable by virtue of their dependence.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

4. Applicant's arguments, see pages 9-11, filed April 17, 2006, with respect to Claims 8-16 and 29-33 have been fully considered and are persuasive. The rejection of claims 8-16 and 29-33 has been withdrawn.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dykster et al. (US patent 5,712,983), Gray et al. (US patent 6,526,120 B1) and Dennis (US patent 4,020,346) teach the X-ray inspection methods and apparatus for imaging a sample within the x-ray shielding volumes.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irakli Kiknadze whose telephone number is 571-272-2493. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on 571-272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 21, 2006
Irakli Kiknadze

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EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER